

National and State Standards

National Technology Standards, as developed by the International Society for Technology Education. The six areas include:

- Basic Operations and Concepts
- Social, Ethical and Human Issues
- Technology Productivity Tools
- Technology Communication Tools
- Technology Research Tools
- Technology Problems Solving and Decision Making Tools

Competencies:

Standard	Pre-K-5	6-8	9-12
Basic Operations and Concepts	<ul style="list-style-type: none"> • Keyboarding • Mousing • Using Software Programs • Using Input Devices • Using the Internet • Identify and label computer parts and functions • Use computer as a modeling tool • Understand saving files • Understand common file storage and retrieval. • Understand printing their work in networked printer environment. 	<ul style="list-style-type: none"> ▪ Using Software Programs to create and present projects ▪ Using Internet for Research ▪ Using Input Devices to support projects ▪ Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. ▪ Use a computer system to monitor and control external events and/or systems. ▪ Students have basic knowledge of how to access commonly shared programs, files and storage devices. 	<ul style="list-style-type: none"> ▪ Using Internet for research ▪ Understand how to make informed and appropriate choices among technology systems, resources and services. ▪ Select a computer system that meets personal needs. ▪ Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. ▪ Understand how software applications and networks interact, and how to make best use of network resources
Social Ethical and Human Issues	<ul style="list-style-type: none"> • Students and their parents will understand, sign and abide by the Internet use policy. 	<ul style="list-style-type: none"> • Demonstrate knowledge of current changes in information technologies and the effect those changes have on the 	<ul style="list-style-type: none"> • Students respect privacy of other users. • Students respect software application security systems.

	<ul style="list-style-type: none"> • Demonstrate respect for computer system hardware and software by handling it gently and with care • Practice responsible use • Work collaboratively and cooperatively with peers, family members and other when using technology in the classroom • Students will know the school printing policy and use it when printing their work to classroom and network computers • Students will understand citations and plagiarism rules, and will use materials appropriately. 	<p>workplace and society.</p> <ul style="list-style-type: none"> • Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. • Students respect privacy of other users. • Students respect software application security systems. • Students abide by district Internet use policy. 	<ul style="list-style-type: none"> • Students abide by district Internet use policy. • Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. • Make informed choices among technology systems, resources, and services • Analyze advantages and disadvantages of widespread use and reliance of technology in the workplace and in society as a whole. • Demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information.
Technology Productivity Tools	<ul style="list-style-type: none"> • Use a variety of media and technology resources for directed and independent learning activities. • Create developmentally appropriate multimedia products with support from teachers, family members, or student partners. • Make use of technology for presentations, including video editing 	<ul style="list-style-type: none"> • Use content specific tools, software, and simulations (e.g. environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. • Store work/presentations in electronic portfolios. 	<ul style="list-style-type: none"> • Store work/presentations in sharable, electronic portfolios. • Make use of technology for presentations, including video editing and image processing. • Investigate and apply expert systems, intelligent agents, and simulations in real-world situations.

	<ul style="list-style-type: none"> and image processing. • Create a personal portfolio. • Store work in electronic portfolios. 		
Technology Communication Tools	<ul style="list-style-type: none"> • Gather information and communicate with others, using telecommunications, with support from teachers, family members, or student partners. • Using telecommunications efficiently and effectively to access remote information communicate with other in support of direct and independent learning and pursue personal interests. 	<ul style="list-style-type: none"> • Create web pages. • Design, develop publish and preset products (e.g.) Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. • Use telecommunications and online resources to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. 	<ul style="list-style-type: none"> • Create web pages. • Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity. • Select and apply technology tools for research, information analysis, problem solving, and decision-making in content learning. • Collaborate with peers, experts and others to contribute to a content-related knowledge based by using technology to compile synthesise, produce, and disseminate information, models, and other creative works.
Technology Research Tools	<ul style="list-style-type: none"> • Use technology resources (e.g. puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication and illustration of thoughts, ideas and stories. 	<ul style="list-style-type: none"> • Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. • Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. 	<ul style="list-style-type: none"> • Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.

<p>Technology Problem Solving and Decision Making Tools</p>	<ul style="list-style-type: none"> • Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. • Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. • Use technology resources (e.g. calculators, data collection problems, videos, Educational software) for problem-solving, self-directed learning, and extended learning activities. • Use modeling and simulation software to emulate authentic problems. • Model and simulate the design of a complex environment 	<ul style="list-style-type: none"> • Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. • Demonstrate an understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving. 	<ul style="list-style-type: none"> • Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. • Investigate and apply expert systems, intelligent agents, and simulations in real-world situations.
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